

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-346837

(43)Date of publication of application : 27.12.1993

(51)Int.Cl.

G06F 3/12
B41J 29/38

(21)Application number : 04-154995

(71)Applicant : CANON INC

(22)Date of filing : 15.06.1992

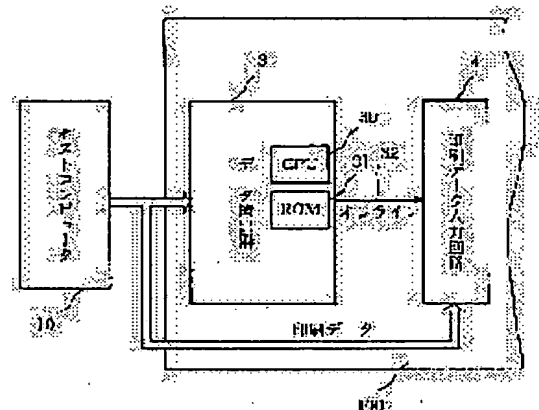
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(54) PRINTER AND DATA RECEIVING METHOD FOR THE SAME

(57)Abstract:

PURPOSE: To set a mode capable of data reception with data from an external equipment by providing a receiving means to receive data from the external equipment and a setting means to set the printer in the reception enable mode based on signals received by the receiving means.

CONSTITUTION: A host computer 10 outputs printing data or various form data to a printer unit 100. A data detection circuit 3 always receives data from the host computer 10 regardless of whether the printer unit 100 is in an on-line state or off-line state. When an on-line mode is set from the data detection circuit 3 or a control panel and this printer unit 100 is not in an error state, a printing data input circuit 4 receives data from the host computer 10. Thus, the received data are expanded onto a bit map and printed onto recording paper.



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[Date of request for examination]

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[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for

Japanese Unexamined Patent Application Publication No. 5-346837

[0015] Fig. 3 is a flowchart showing a process executed in the data detecting circuit 3. This process is implemented by a CPU 31 in the data detecting circuit 3, and a control program for executing the process is stored in a ROM 31.

[0016] At first, after receiving data from the host computer 10 in step S1, the CPU 31 proceeds to step S2 and determines whether the printer apparatus 100 is currently in online mode. When the printer apparatus 100 is in online mode, the CPU 31 proceeds to step S3 and performs normal data receiving and printing.

[0017] When the printer apparatus 100 is not in online mode in step S2, the CPU 31 proceeds to step S4 and determines whether the received data is an instruction for switching to the online mode. When the received data is the instruction for switching to the online mode, the CPU 31 proceeds to step S5 and determines whether the printer apparatus 100 is currently in error status. This is because the printer apparatus 100 may be in offline mode due to, for example, paper jamming or no toner. When the printer apparatus 100 is in error status, or the received data is not the instruction for switching to the online mode in step S4, the CPU 31 proceeds to step S6. By outputting an error response

to the host computer 10, the CPU 31 reports that it is impossible to switch to the online mode or that the received data cannot be accepted. In step S7, the offline mode is held.

[0018] In addition, when the printer apparatus 100 is not in error status, the CPU 31 proceeds to step S8 and outputs, to the printing-data input circuit 4, an online signal 32 for designating the online mode. This allows the printing-data input circuit 4 to be in online mode based on the online signal 32, and the printer apparatus 100 can accept and print the data from the host computer 10.

[0019] Fig. 4 is a schematic block diagram showing the configuration of a printer apparatus 100a according to another embodiment of the present invention.

[0020] In Fig. 4, the printer apparatus 100a is connected to two host computers 5 and 6. Reference numeral 8 denotes a data detecting circuit for detecting electric signals from the host computers 5 and 6, and the basic configuration of the circuit is substantially similar to the data detecting circuit 3 in Fig. 1. Reference numerals 9 and 10 respectively denote printing-data input circuits for processing data input from the host computers 5 and 6. Each of the printing-data input circuits 9 and 10 is substantially similar in configuration to the printing-data input circuit 4 in Fig. 1.

[0021] In this embodiment, the data detecting circuit 8 performs detection about which of the host computers 5 and 6 sends data. If the data detecting circuit 8 detects the printing data from the host computer 5, it outputs an online signal to the printing-data input circuit 9. Accordingly, the printing data from the host computer 5 is input and processed in the printing-data input circuit 10.

[0022] This operation is similarly performed also in a case in which the host computer 6 sends printing data to the printer apparatus 100a. However, while the printer apparatus 100a is exchanging data with either host computer, if the other host computer sends printing data, the printer apparatus 100a cannot accept the printing data.

[0023] In this embodiment, by providing the data detecting circuit 8, printing data from the host computers 5 and 6 can be received and printed. In addition, in response to an instruction from the host computer 5 or 6, by performing switching to an online mode capable of automatically receiving data, data from each host computer can be input to the printer apparatus 100a.